

CSS Layout & Flexbox

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tags: `ntut-f2e`

About Me

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Today we talk about

1. Environment Setup
2. Layout with CSS (Flexbox)

Environment Setup

We will use Visual Studio Code(VSCode) as the code editor through out this course.



 Visual Studio Code Docs Updates Blog Community Extensions FAQ

↓ Download

Version 1.22 is now available! Read about the new features and fixes from March.

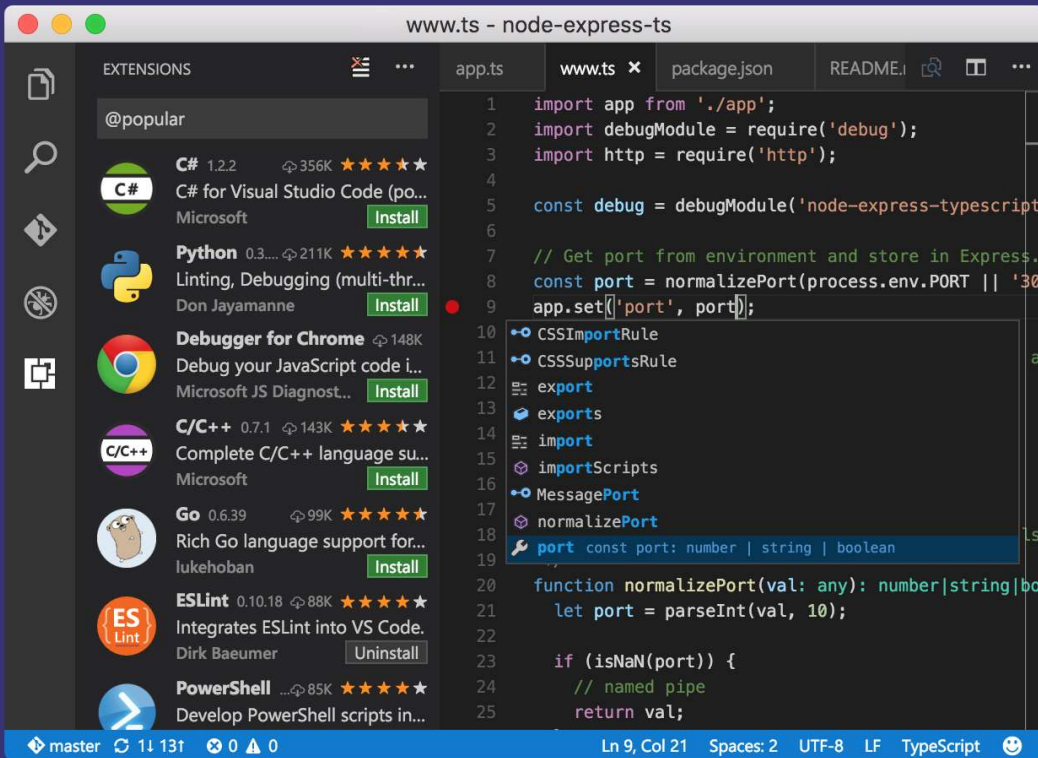
Code editing. Redefined.

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By using VS Code, you agree to its
license and privacy statement.



The screenshot shows the Visual Studio Code interface. On the left, the 'EXTENSIONS' view is open, displaying a list of popular extensions. The main editor area shows a TypeScript file named 'app.ts' with the following code:

```
1 import app from './app';
2 import debugModule = require('debug');
3 import http = require('http');
4
5 const debug = debugModule('node-express-typescript');
6
7 // Get port from environment and store in Express.
8 const port = normalizePort(process.env.PORT || '3000');
9 app.set('port', port);
10
11 // CSSImportRule
12 // CSSSupportsRule
13 export
14 exports
15 import
16 importScripts
17 MessagePort
18 normalizePort
19 port const port: number | string | boolean
20
21 function normalizePort(val: any): number|string|boolean {
22   let port = parseInt(val, 10);
23
24   if (isNaN(port)) {
25     // named pipe
26     return val;
```

The status bar at the bottom indicates the current file is 'app.ts', line 9, column 21, with 2 spaces, UTF-8 encoding, LF line endings, and TypeScript language.

Extensions we will use

1. Live Server
2. Beautify
3. Live Sass Compiler

Start a simple HTML template

Use  + 

h1 + Tab

```
1 | <h1></h1>
```

h1+p + Tab

```
1 <h1></h1>  
2 <p></p>
```

`.box>h1` + Tab

```
1 <div class="box">
2   <h1></h1>
3 </div>
```

More information about Emmet
Check [Emmet Cheat Sheet](#)

Comment hot key

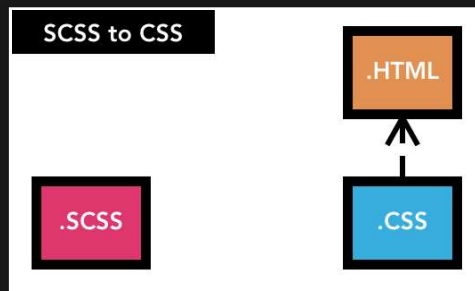
Use  + 

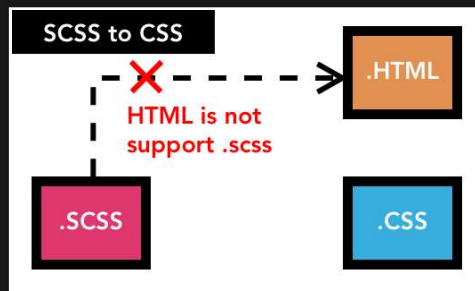
What's Sass

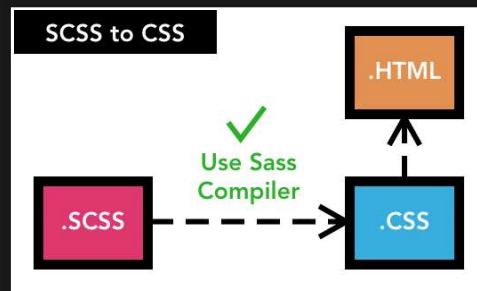
Syntactically Awesome Style Sheets which is created by [Hampton Catlin](#)

What's Sass

1. Advanced Stylesheet syntax.
2. With two types of syntax `.sass`, `.scss`
3. A language which use to generate normal `.css` files.







in CSS

```
1 .title {  
2   color: red;  
3 }  
4 /* When .title is hover by cursor */  
5 .title:hover {  
6   color: blue;  
7 }  
8 /* When .title is clicked */  
9 .title:active {  
10   color: orange;  
11 }
```

SCSS Nesting Selector

```
1 .title {  
2   color: red;  
3   &:hover {  
4     color: blue;  
5   }  
6   &:active {  
7     color: orange;  
8   }  
9 }
```

in CSS

```
1  .box {  
2      color: #ff0000;  
3      background-color: #ff0000;  
4  }  
5  p {  
6      text-shadow: 2px 2px 0px #ff0000;  
7  }
```

SCSS Variables

```
1 // Assign #ff0000 as
2 // value of $primary
3 $primary: #ff0000
4 .box {
5     color: $primary;
6     background-color: $primary;
7 }
8 p {
9     text-shadow: 2px 2px 0px $primary;
10 }
```

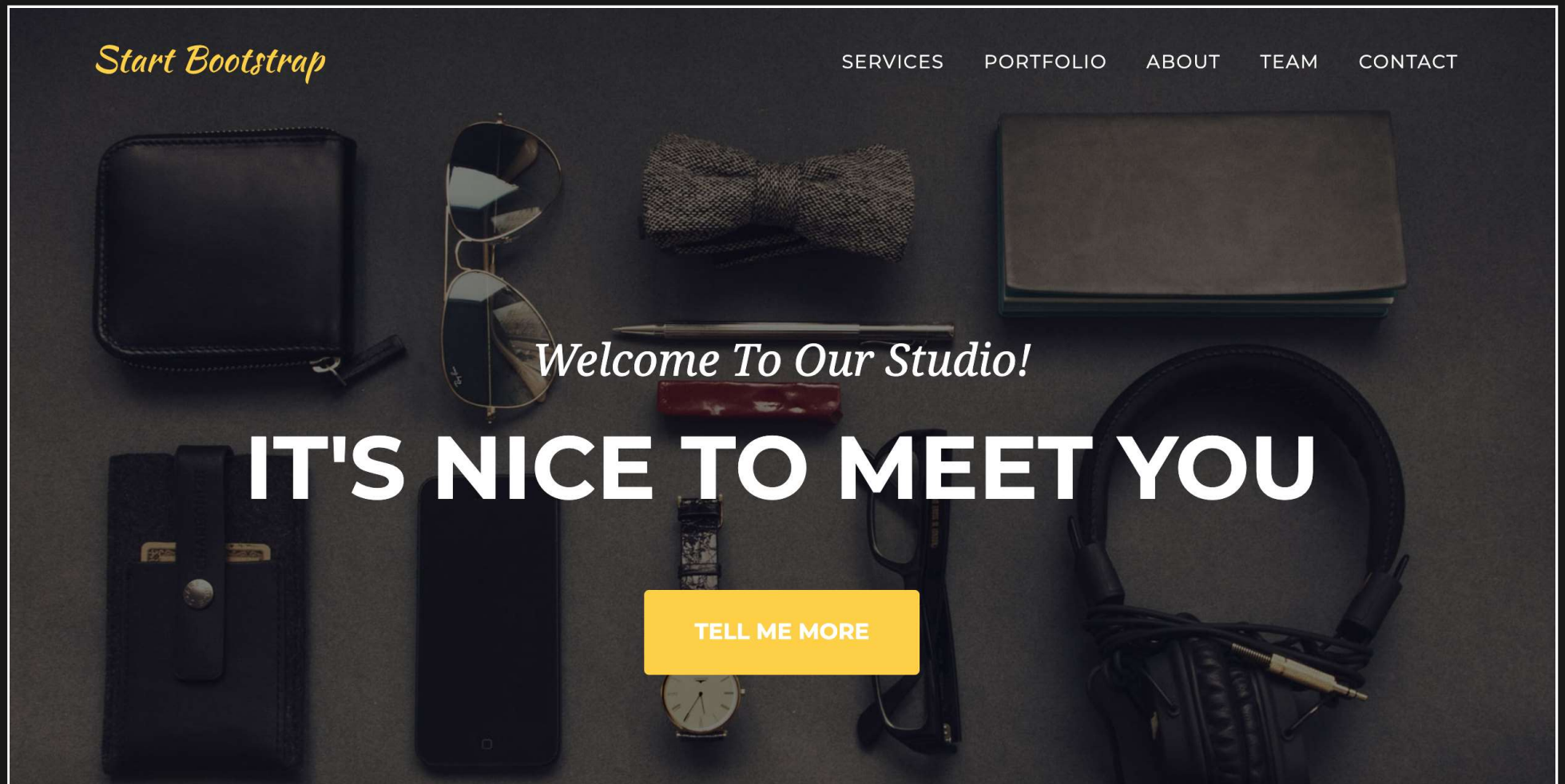
More Information about Sass

<https://sass-lang.com/guide>

Layout with CSS (Flexbox)

The purpose of learning flexbox is we could actually **layout** our website content.





Website is built with many block elements.

(div, section, header, nav, footer ...)

https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/Using_HTML_sections_and_outlines

Before We start layout a website
What is the **real size** of the .box?

```
1 .box {  
2   width: 300px;  
3   height: 300px;  
4   border: 1px solid black;  
5 }
```

Set all elements in web page into **border-box** mode

```
1 * {  
2   box-sizing: border-box;  
3 }
```

<https://developer.mozilla.org/en-US/docs/Web/CSS/box-sizing>

Flexbox

A special CSS Display Mode for layout elements inside.

Flexbox

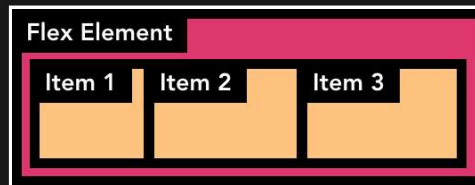
Flexbox is a one-dimensional layout method for laying out items in rows(default) or columns.

Items flex to fill additional space and shrink to fit into smaller spaces. This article explains all the fundamentals.

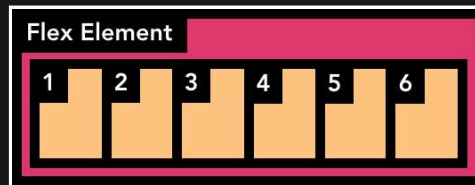
Set an element into flex mode

```
1 element {  
2   display: flex;  
3 }
```


Put 3 items in the flex element.



Put 6 items in the flex element.



Even set the item width to 33.333%

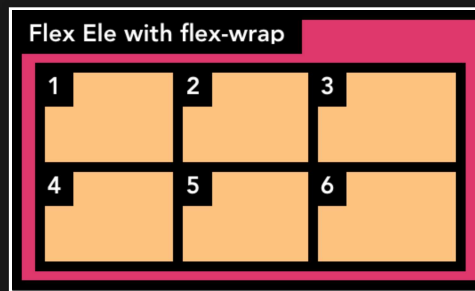
```
1 item {  
2   width: 33.333%;  
3 }
```

Solution

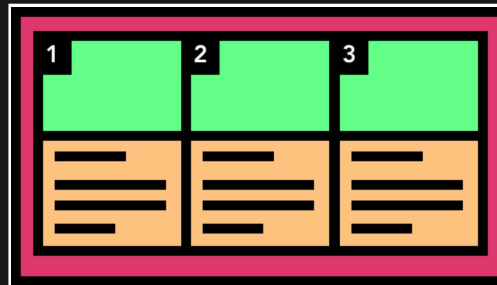
Set flex element into **wrap** mode.

```
1 element {  
2   flex-wrap: wrap;  
3 }
```

<https://developer.mozilla.org/en-US/docs/Web/CSS/flex-wrap>

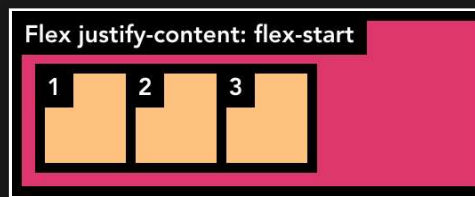


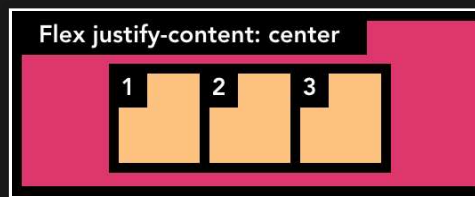
Try to put content inside the flex items

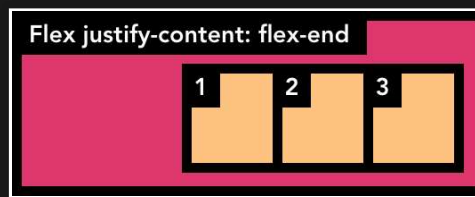


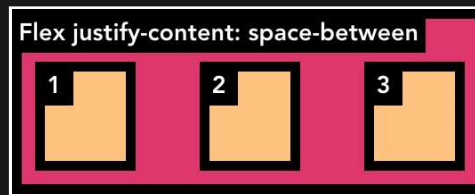
Justify Content Mode

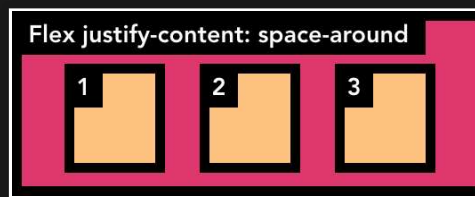
```
1 element {  
2   display: flex;  
3   justify-content: center;  
4 }
```











HOMEWORK

Try to use flexbox to create a simple layout for your personal web page.

- You might get some ideas from [Pinterest.com](https://www.pinterest.com).
- Don't Need to consider mobile web and overlapping yet.

Implementing responsive web design

```
1 @media (condition) {  
2   item {  
3     width: 100%;  
4   }  
5 }
```